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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,601	06/03/2005	Viatcheslav Pronkine	US02 0485 US	3467

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EXAMINER

HU, RUI MENG

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,601	PRONKINE, VIATCHESLAV	
	Examiner	Art Unit	
	RuiMeng Hu	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/03/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Preliminary Amendment

1. The present Office Action is based upon the original patent application filed on 06/03/2005 as modified by the preliminary amendment filed on 06/03/2005. **Claims 1-21** are now pending in the present application.

Information Disclosure Statement

2. The information disclosure statement submitted on 06/03/2005 been considered by the Examiner and made of record in the application file.

Specification

3. The disclosure is objected to because of the following informality:

a) On page 6 line 3, replace "320a" with --320--.

Appropriate correction is required.

Claim Objections

4. **Claim 15** is objected to because of the following informalities:

a) In claim 15, line 10 "said conductor" lacks antecedent.

b) In claim 15, line 11 "said conductor" lacks antecedent.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. **Claims 1-6, 8-13, 15, 18, 21** are rejected under 35 U.S.C. 102(b) as being anticipated by **Massey (US Patent 6150983)**.

Consider **claims 1 and 8**, Massey clearly discloses a system and a method for wireless communication (column 1 lines 25-30, 56-63), particularly for receiving communication signals, said system comprising (Abstract, figure 1, column 4 line 54-column 5 line 3, column 4 lines 45-58): a main antenna structure (antenna 10), said antenna structure adapted to receive a communication signal as a first internal signal; and an antenna cable (wave-guiding assembly 2), said antenna cable having a first end operationally coupled to said main antenna structure (connection point 11) and a second end, said antenna cable including a main conductor (inner conductor 6) for passing said first internal signal, and a second receiving conductor (outer conductor 4), said second receiving conductor adapted to receive said communication signal as a second internal signal (column 4 line 54-column 5 line 3, the outer conductor 4 as an antenna since it is designed for taking up the electromagnetic oscillation in a manner similar to the manner in which the antenna element operates) is spatially separated from the main antenna structure (figures 1 and 2).

Consider **claim 2 as applied to claim 1, claim 9 as applied to claim 8**, Massey clearly discloses wherein said second receiving conductor functions as an electromagnetic shield for the antenna cable (the outer conductor 4 of the coaxial cable functions as an electromagnetic shield).

Consider **claim 3 as applied to claim 1, claim 10 as applied to claim 8,**
Massey clearly discloses wherein said communication signal is provided by a signal source (the antenna device to be used in mobile telephones).

Consider **claim 4 as applied to claim 3, claim 11 as applied to claim 10,**
Massey clearly discloses wherein said communication signal is a radio frequency (RF) signal (mobile telephones communicate in RF signal).

Consider **claim 5 as applied to claim 1, claim 12 as applied to claim 8,**
Massey clearly discloses wherein said system further comprises: a receiver operationally coupled to said antenna cable, wherein said receiver includes an input port adapted to receive said signal from the main antenna, and also adapted to receive a signal from the outer shield of the antenna cable as a separate signal (column 5 lines 20-26, using coaxial plugs for passing the electromagnetic oscillation on through the inner conductor 6 and 7 for further processing in a mobile telephone, the circuitry unit 190 used for further processing of the received signals thus circuitry unit 190 functions as a receiver and signal processor (figure 6, column 8 lines 23-31)).

Consider **claim 6 as applied to claim 5, claim 13 as applied to claim 12,**
Massey clearly discloses wherein said receiver includes signal processing circuitry operationally coupled to said input port, said signal processing circuitry adapted to process said first internal signal and said second internal signal for use by an end user (figure 6, the circuitry unit 190 receives and processes the first signal from antenna and the second signal from the conductor parts (4, 5) of the wave-guiding assemblies 2, 3).

Consider **claims 15 and 18**, Massey clearly discloses a wireless communication system comprising (Abstract, figure 1, column 2 lines 15-20, column 4 lines 45-58): a signal source for providing a communication signal (it is inherent, a cordless telephone receives RF signal from a transmitter); a first antenna for receiving said communication signal as a first internal signal (antenna 10), said first antenna operationally connected to an antenna cable (connection point 11, coaxial cables/wave-guiding assemblies 2 and 3); a second antenna for receiving said communication signal as a second internal signal on an outer shield of said antenna cable (column 4 line 54-column 5 line 3, the outer conductor 4 as an antenna since it is designed for taking up the electromagnetic oscillation in a manner similar to the manner in which the antenna element operates), said second antenna being spatially distinct from said first antenna (figure 1), and wherein said outer shield provides an electromagnetic shield for said antenna cable (the outer conductor 4 of a coaxial cable); a signal receiver having a first input for receiving said first internal signal via said first conductor, and a second input for receiving said second internal signal via said second conductor; and signal processing-circuitry operationally connected to said first input and said second input, said signal processing circuitry adapted to operationally modify said first internal signal and said second internal signal to produce a usable signal (column 5 lines 20-26, using coaxial plugs for passing the electromagnetic oscillation on through the inner conductor 6 and 7 for further processing in a mobile telephone, the circuitry unit 190 used for further processing of the received signals thus circuitry unit 190 functions as a receiver and signal processor (figure 6, column 8 lines 23-31), the circuitry unit 190 receives and

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processes the first signal from antenna and the second signal from the conductor parts (4, 5) of the wave-guiding assemblies 2, 3).

Consider **claim 21**, Massey clearly discloses an apparatus containing a wireless communication system (Abstract, figure 1, column 2 lines 15-20, column 4 lines 45-58), said apparatus comprising: a first antenna (antenna 10) for receiving a communication signal on a first conductor (the inner conductor 6), as a first internal signal, said first antenna operationally connected to an antenna cable (the wave-guiding assembly 2); a second antenna (the outer conductor 4) for receiving said communication signal as a second internal signal on an outer shield of the antenna cable of the first antenna (the outer conductor 4 as an outer shield of the antenna cable (coaxial cable)); a signal receiver adapted to separate said first internal signal and said second internal signal (figure 6, the circuitry unit 190); signal processing circuitry operationally connected to said first input and said second input, said signal processing circuitry adapted to operationally modify said first and second internal signals to produce a usable signal (column 5 lines 20-26, using coaxial plugs for passing the electromagnetic oscillation on through the inner conductor 6 and 7 for further processing in a mobile telephone, the circuitry unit 190 used for further processing of the received signals thus circuitry unit 190 functions as a receiver and signal processor (figure 6, column 8 lines 23-31), the circuitry unit 190 receives and processes the first signal from antenna and the second signal from the conductor parts (4, 5) of the wave-guiding assemblies 2, 3); and an electrical power source operationally coupled to, and adapted to provide electrical power to said signal receiver, said signal processing circuitry, and said first and second

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antennas (It is inherent that the mobile communication device is powered by electrical power source).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 7, 14, 16-17, 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Massey (US Patent 6150983)**.

Consider **claim 7 as applied to claim 6, claim 14 as applied to claim 13**, Massey fail to disclose wherein said input port includes a decoupling device, said decoupling device adapted to separate signals carried by the antenna cable from the main antenna and induced on the outer shield of the antenna cable. However, official notice is taken that a decoupling device for filtering a signal is well known in the art.

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Therefore it would have been obvious to have a decoupling device such as a transformer or filter in the circuitry unit 190 as to obtain fine signals.

Consider **claim 16 as applied to claim 15, claim 19 as applied to claim 18,** Massey fail to disclose wherein said first input and said second input each include a decoupling device, said decoupling device allowing the first and second internal signals to pass to the signal processing circuitry. However, official notice is taken that a decoupling device for filtering a signal is well known in the art. Therefore it would have been obvious to have decoupling devices such as transformers or filters in the circuitry unit 190 as to obtain fine signals.

Consider **claim 17 as applied to claim 16, claim 20 as applied to claim 19,** Massey fail to disclose wherein the decoupling device is selected from the group consisting of a ferromagnetic device, a transformer, an opto-electronic device, a differential amplifier, a SAW device, and an optical device. However, official notice is taken that a decoupling device for filtering a signal is well known in the art, and the decoupling device could be a transformer or filter. Therefore it would have been obvious to have a decoupling device such as a transformer or filter in the circuitry unit 190 as to obtain fine signals.

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

to: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RuiMeng Hu
R.H./rh
January 16, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 1/20/07